

Chapter 11 Introduction to Genetics**Section Review 11-1****Reviewing Key Concepts**

Short Answer *On the lines provided, answer the following questions.*

1. State Mendel's principle of dominance.

2. Which two combinations of alleles could produce a trait controlled by a dominant allele?

3. What combination of alleles could produce a trait controlled by a recessive allele?

4. Explain segregation of alleles, using pea plant traits in your example.

Reviewing Key Skills

5. **Applying Concepts** Explain how Mendel's experiments would have been different if he had not worked with true-breeding plants.

6. **Comparing and Contrasting** Explain the difference between cross-pollination and self-pollination in plants.

7. **Calculating** One fourth of the plants resulting from a certain cross are expected to show a trait controlled by a recessive allele. If 675 plants resulting from the cross display a trait controlled by a dominant allele, how many plants will show the trait controlled by the recessive allele?

8. **Applying Concepts** If one of the plants used in the F_1 cross had TT alleles and was combined with a plant with Tt alleles, would the trait controlled by the recessive allele have been produced in the resulting F_2 generation? Explain your answer.
